Explore 21 (2025) 103117

Contents lists available at ScienceDirect

EXPLORE

journal homepage: www.elsevier.com/locate/jsch

Thought Field Therapy intervention to improve mental health during the COVID-19 pandemic: A randomized controlled trial

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ARTICLE INFO

Keywords:
COVID-19
Psychotherapy
Self-care
Trauma
Anxiety
Thought field therapy
Stress

ABSTRACT

Context: The COVID-19 pandemic contributed to a significant rise in mental health issues, including a 70 % increase in Japan's suicide rate. Prior studies suggest that Thought Field Therapy (TFT) can rapidly alleviate psychological distress.
Objective: To evaluate the efficacy of online TFT as a quick intervention for psychological problems.
Design: This study employed the Brief Job Stress Questionnaire, administered to TFT and waitlist (WL) groups before and after the intervention, with the WL group also assessed two weeks prior to the TFT intervention. Follow-up questionnaires were completed by all participants after two additional weeks.
Setting: Subjective Unit of Distress Scale (SUDS) scores for targeted psychological issues were collected across participant groups.
Participants: Ninety-nine participants were randomly assigned to either the TFT intervention group or the WL group.
Interventions: Among the 88 participants who completed the TFT intervention, significant reductions were observed in all negative emotions, including stress-induced mental and physical reactions, irritability, fatigue, anxiety, depression, and somatic complaints ($p < .01$).
Main Outcome Measures: SUDS scores for 248 issues, including trauma and anxiety, showed a significant decrease from an average of 7 to 1.5 following the TFT intervention ($p < .01$) with a large effect size ($dz = 2.15$).
Results: A brief online TFT intervention during the COVID-19 pandemic significantly reduced psychological stress, with sustained effects observed over two to six weeks. This suggests that TFT is an effective accessible tool for mental health and self-care in the absence of face-to-face therapy.

Introduction

Since the first reported case of coronavirus disease 2019 (COVID-19) in Wuhan, China, in late 2019, the virus has spread worldwide.[1] As of March 12, 2022, COVID-19 affected 5.7 % of the global population, with 455,232,695 cases and a 1.3 % fatality rate, resulting in 6036,131 deaths globally.[2] Compared with lung cancer's 0.6 % fatality rate, COVID-19 presents a substantially higher risk (four times more dangerous, with a 2.8 % fatality rate as of August 1, 2020).[3] In Japan alone, the cumulative number of deaths reached 25,860.[4]

The psychological impact of COVID-19 has been significant, with levels of anxiety, depression, stress, and sleep disturbances surpassing those observed during previous pandemics or large-scale natural disasters.[5] The COVID-19 pandemic had potential indirect effects on mental health, including increased levels of anxiety, depression, and negative emotions.[6] Torales et al.[7] reported an increase in negative emotions during COVID-19, arguing for global health measures to address psychosocial stressors related to isolation and quarantine. Lee et al.[5] highlighted the need for active treatments and interventions for mental health, with an urgent call for psychological support. Studies on Ebola have shown that fear and tension can spread similarly to a pandemic, affecting society as a whole.

Abbreviations: ANOVA, analysis of variance; BJSQ, Brief Job Stress Questionnaire; G-G, Greenhouse–Geiser; PTSD, post-traumatic stress disorder; SUDS, Subjective Unit of Distress Scale; TFT, Thought Field Therapy; WL, waitlist.

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https://doi.org/10.1016/j.explore.2025.103117
Received 24 April 2024; Received in revised form 3 December 2024; Accepted 9 January 2025
Available online 10 January 2025

Japan declared a state of emergency and restricted activities under the Prevention of the Spread Act, forgoing a lockdown policy.[8] This caused anxiety, stress, and fatigue owing to restrictions on daily life and leisure activities. Reduced social interaction, restrictions on daily activities, and a general lack of stress relief options exacerbated mental health issues.

Dincer and Inangil[9] demonstrated the effectiveness of the Emotional Freedom Technique in reducing stress, anxiety, and burnout symptoms among healthcare workers. The Emotional Freedom Technique, like Thought Field Therapy (TFT), belongs to the field of energy psychology, which utilizes tapping acupuncture point stimulation to help alleviate psychological distress. This therapy has been effective in disaster relief efforts, including those related to fires, earthquakes, hurricanes, tornadoes, school shootings, and the COVID-19 pandemic.[10]

TFT, a self-administered tapping technique that targets energy meridians and bilateral optical-cortical stimulation while individuals focus on targeted symptoms or problems, has shown promise as an intervention.[11] It comprises 35 tapping patterns used to treat various symptoms, including trauma, anxiety, anger, and physical pain, and unlike some therapies, it does not require patients to recall traumatic details explicitly, allowing focus on symptoms or feelings of discomfort related to trauma.[12]

Several studies have demonstrated the effectiveness of TFT, including using randomized controlled trials. Irgens et al.[13] reported that two TFT sessions led to significant anxiety reductions among patients, with effects persisting at a 12-month follow-up. A comparative study[14] also showed TFT to be as effective as cognitive behavioral therapy in treating agoraphobia and other anxiety-related symptoms, with TFT offering similar benefits in fewer sessions.

TFT has also shown to be effective in conflict and disaster zones such as post-genocide Rwanda[15,16] and conflict-affected regions in Iraq[17] and Uganda,[18] particularly in alleviating the symptoms of trauma and post-traumatic stress disorder (PTSD). A meta-analysis of mental health interventions by lay counselors[19] included two TFT[16,18] studies among the five therapies with the highest effect sizes. These studies highlight TFT's suitability as an effective mental health intervention, even when administered by non-professionals in high-stress, resource-limited environments. TFT is also characterized by the speed of its procedures and their effects. Studies in Rwanda,[15] Uganda,[18] and Japan[20] have involved single interventions. The mean intervention time was 41 min in Connolly and Sakai's study[15] and 36 min in Morikawa et al's study.[20]

A Japanese case study reported that TFT was effective in treating agoraphobia and school phobia in a 15-year-old girl who was not attending school.[21] Another case report showed that TFT eliminated guilt caused by traumatic stress in a patient with major depression. Another PTSD patient overcame overeating by successfully treating anger and trauma with TFT. TFT was used to treat psychogenic vomiting in a patient with gastrointestinal neurosis.[22] Other researchers have concluded that a TFT intervention among depressed patients with suicide attempts reduced tension, improved emotional stability, led to cognitive changes, and increased resilience.[23]

In Japan, medical professionals and psychological counselors have used TFT in clinical settings and some university courses have incorporated TFT. However, controlled studies on the effectiveness of TFT are scarce and more evidence is needed to provide guidelines for future psychological treatments.

The COVID-19 pandemic has spurred the adoption of digital mental health solutions, including Internet-based therapies, which are increasingly recognized as accessible and practical tools for mental healthcare.[24] Social media has also been shown as an effective mental healthcare aid for college students, with research suggesting that it may be effective in lowering depression, anxiety, and stress.[25] Accumulating evidence indicates that Internet interventions may have a small-to-moderate impact on a variety of mental health conditions. Online cognitive behavioral therapy programs have further been shown to improve the symptoms of depression, anxiety, and stress.[26]

This study investigated the efficacy of a brief, online TFT session, delivered via Zoom, for enhancing mental health among Japanese participants during the COVID-19 pandemic. Given TFT's simplicity, low cost, and minimal time requirements, it holds promise as a practical mental health intervention, particularly in contexts where traditional face-to-face therapy is challenging.

Materials and methods

This study employed a randomized waitlist (WL) control group design, adhering to the Consolidated Standards of Reporting Trials for Social and Psychological Interventions (CONSORT-SPI) 2018 guidelines,[27] as shown in the checklist in Table 1.

Participants

Participants were recruited through a website and an e-mail newsletter from April 2021 to the end of March 2022. They were required to be adults aged 18 years or older who were experiencing psychological distress and expressed interest in the TFT intervention. Those actively receiving treatment for mental health issues were required to provide their doctors' permission prior to participation. A total of 99 individuals consented to participate: 83 (83.8 %) were women and 16 (16.1 %) were men, with an age range from 22 to 65 years (M = 44.1 years, SD = 10.3). Pre-pandemic diagnoses among participants included PTSD, eating disorders, panic disorders, depression, and other psychosomatic and mental health conditions.

Randomization

Participants were randomly assigned to either the intervention (TFT) group (n = 48; 39 women, 9 men; age range of 24 to 65 years, M = 45.7 years, SD = 11.0) or the WL control group (n = 51; 44 women, 7 men; age range of 22 to 62 years, M = 44.1 years, SD = 10.3). Randomization was conducted in Microsoft Excel using the formula [=RAND () * (1 - 0) + 0]. Participants with generated numbers above 0.50 were allocated to the TFT group and those with numbers below 0.50 were allocated to the WL group. Participants were not informed of their group assignments. Following randomization, each participant was scheduled for an individual session, with Zoom links and questionnaires distributed via e-mail as per the session schedule.

Study methods

The Brief Job Stress Questionnaire (BJSQ)[28] and Subjective Unit of Distress Scale (SUDS)[29] were employed to assess participants' stress and distress levels, respectively.

- ***BJSQ***[28]***:*** The BJSQ assesses psychological and physical stress across 29 items, which are scored on a four-point Likert scale (from strongly agree = 4 to strongly disagree = 1) and divided into six subscales: vigor (3 items), irritability (3 items), fatigue (3 items), anxiety (3 items), depression (6 items), and somatic complaints (11 items). Missing values in the responses of two participants were replaced with the median values for their subscale.
- ***SUDS***[29]***:*** During the initial session, therapists identified participants' chief complaints and associated negative emotions, obtaining consent to address these. Participants rated their discomfort on the SUDS from 0 (no discomfort) to 10 (most discomfort), with multiple complaints treated as separate data points.

Intervention

In the TFT group, an initial questionnaire (pre-TFT) was administered, followed by a TFT session targeting individual concerns. A second questionnaire (post-TFT) was conducted after two weeks, followed by a

Table 1
CONSORT checklist.

Section	CONSORT Abstract item	Relevant CONSORT-SPI item	Reported on Page #
Title	Identification of the study as randomized		Page 1/ Line 1
Authors	Contact details for the corresponding author		Title page
Introduction			
Background	Specific backgrounds and explanation or rationale		Page 2/ Lines 3–26
Objectives	Specific objectives or hypotheses		Page 3/ Lines 11–12
Methods			
Trial Design	Description of the trial design (e.g. parallel, cluster, noninferiority)	If the unit of random assignment is not the individual, refer to CONSORT for Cluster Randomized Trials and report the items included in its extension for abstracts	Page 3/ Lines 19–21
Participants	Eligibility criteria for participants and the settings where the data were collected	When applicable, the eligibility criteria for the setting of the intervention delivery and the eligibility criteria for the persons who delivered the interventions	Page 3/ Lines 24–27
Interventions	Interventions intended for each group		Page 4/ Lines 2–8
Randomization	How participants were allocated to interventions		Page 3/ Lines 33–37
Awareness of assignment	Who was aware of intervention assignment after allocation (for example, participants, providers, those assessing outcomes), and how any masking was done		Page 3/ Lines 38–40
Results			
Number randomly assigned	Number randomized to each group		Page 4/ Lines 30–31
Interventions		Extent to which interventions were actually delivered by providers and taken up by participants as planned	Page 4/ Lines 35–36
Number Analyzed	Number analyzed in each group		Page 4/ Lines 34–35
Outcomes	For the primary outcome, a result for each group and the estimated effect size and its precision		Page 4/ Lines 43–45 Page 4/ Lines 52–53 Page 13/ Lines 3–8
Harms	Important adverse events or side effects		Page 4/ Lines 36–37
Conclusions	General interpretation of the results		Page 14/ Lines 45–53
Funding	Source of funding		Title page

Citations.
Montgomery, P., Grant, S., Mayo-Wilson, E., Macdonald, G., Michie, S., Hopewell, S., & Moher, D. (2018). Reporting randomised trials of social and psychological interventions: the CONSORT-SPI 2018 Extension. *Trials, 19*(1), 407. Grant, S., Mayo-Wilson, E., Montgomery, P., Macdonald, G., Michie, S., Hopewell, S., & Moher, D. (2018). CONSORT-SPI 2018 Explanation and Elaboration: guidance for reporting social and psychological intervention trials. *Trials, 19*(1), 406.

final follow-up questionnaire (follow-up) two weeks later.

For the WL group, a baseline questionnaire (baseline) was first administered. Two weeks later, participants completed a second questionnaire (pre-TFT) before receiving their first TFT session. A third questionnaire (post-TFT) was administered after another two weeks and a final follow-up questionnaire (follow-up) was completed approximately two weeks later.

Treatment protocols

The TFT intervention consisted of tapping specific acupuncture points associated with negative emotions. Individual tapping sequences were determined using TFT diagnostic methods, including an online voice diagnostic for algorithm selection. Therapists guided participants in performing the indicated tapping procedures.

Procedures

All the interventions were performed by TFT therapists trained to the advanced level, with the authors themselves similarly qualified. During each TFT session, therapists discussed participants' chief complaints, recorded the SUDS score before and after each session, and repeated this process in a follow-up session conducted two weeks later.

Analyses

Statistical analyses were conducted using js-STAR[30,31] and statistical analysis software.[31] Analyses included analyses of variance (ANOVAs) and *t*-tests to assess the intervention's effects.

Results

Participant flow

A total of 99 participants were randomly assigned to either the TFT group ($n = 48$) or the WL group ($n = 51$). In the TFT group, nine participants did not attend the first session and two in the WL group missed the first session. In addition, two WL participants did not participate in the second session. Follow-up assessments were not completed by nine participants in each group. One participant in the WL group was excluded owing to missing questionnaire data. The TFT group ($n = 30$) and WL group ($n = 37$) were analyzed. Fig. 1 presents the flowchart of this study. The interventions were performed between April 2021 and May 2022 and were fairly delivered as planned. No adverse events were reported during the study period.

Treatment outcomes

BJSQ Total Scores: To evaluate the efficacy of the TFT intervention, a one-factor repeated-measures ANOVA was performed on the BJSQ total score, analyzing each subscale over time (baseline, pre-TFT, post-TFT, and follow-up) in both groups (Table 2). For the TFT group, significant reductions in the BJSQ total score were observed over time ($F(2, 88) = 27.666$, $p < .01$, $\eta_p^2 = 0.386$; Table 3). Mauchly's sphericity test confirmed this assumption ($W = 0.919$, $p = .163$). The Benjamini–Hochberg method was used to adjust the *p*-values of the analyses. The Bonferroni correction indicated significant decreases in BJSQ scores post-TFT and at follow-up, with no significant difference between these two time points (Table 4). The WL group (Table 3) also showed a significant reduction over time ($F(3, 126) = 27.52$, $p < .01$, $\eta_p^2 = 0.396$), with the Greenhouse–Geiser (G-G) adjusted *p*-value confirming its

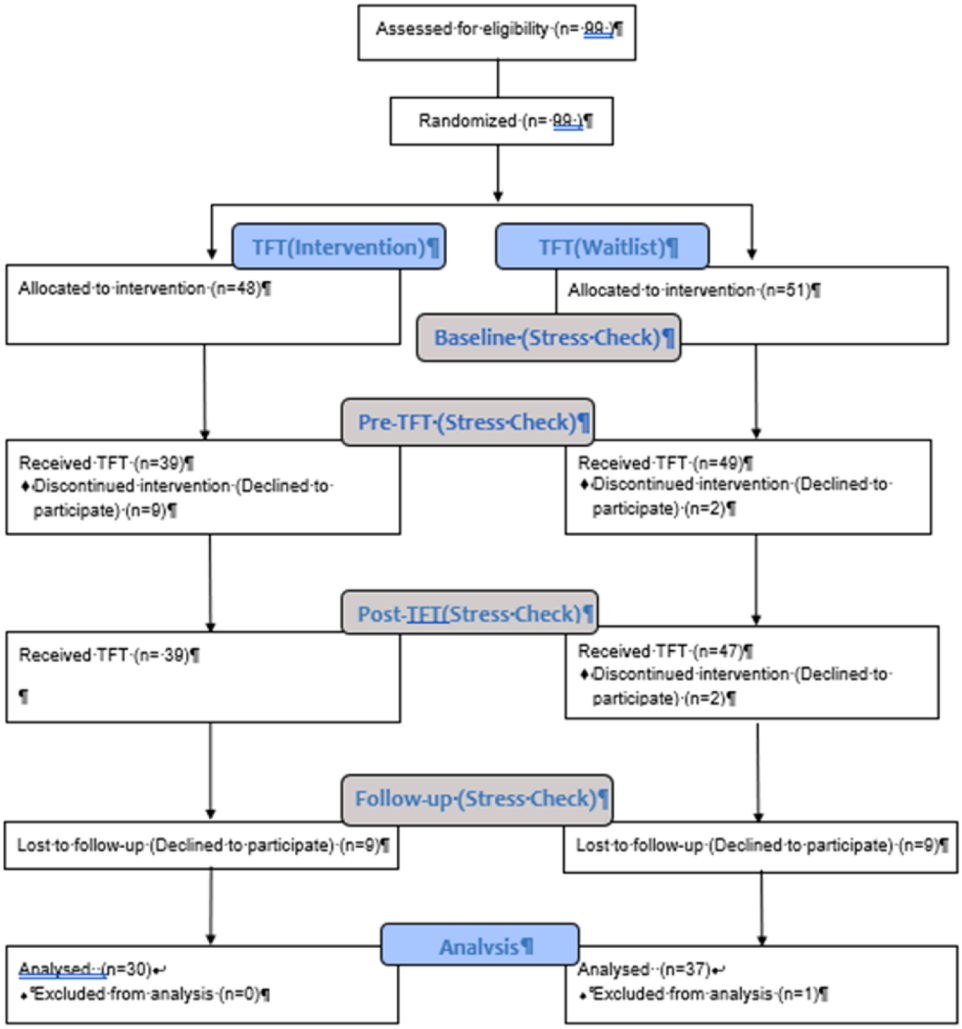

Fig. 1. Flow-Diagram.

significance ($p = .002$, $\varepsilon = 0.763$). The Bonferroni correction confirmed the intervention's impact on stress reduction in the WL group, which was sustained at follow-up (Table 5).

Vigor Scores: In the TFT group, the ANOVA showed no significant main effect of time on vigor scores ($F(2, 88) = 1.794$, $p = .172$, $\eta_p^2 = 0.039$) (Table 6). By contrast, the WL group had a significant effect of time ($F(3, 126) = 6.818$, $p < .01$, $\eta_p^2 = 0.14$; Table 3). A significant increase in follow-up vigor scores in the WL group suggested potential improvement in vitality over time, although this effect was not evident in the TFT group. Mauchly's sphericity test for within-participant errors was significant ($W = 0.691$, $p = .01$). Therefore, the G-G correction was used, confirming that the main effect of time was significant (G-G corrected $p = .000$).

Irritability Scores: For irritability scores in the TFT group, a significant time effect was observed (Table 3) ($F(2, 88) = 11.649$, $p < .01$, $\eta_p^2 = 0.209$), with lower irritability post-TFT and at follow-up. However, there were no significant differences between post-TFT and follow-up scores (Table 7). In the WL group, a significant effect was also found ($F(3, 126) = 7.39$, $p < .01$, $\eta_p{}^2 = 0.15$). The G-G correction supported these findings, indicating the TFT intervention's effectiveness in reducing irritability in both groups. Mauchly's sphericity test for within-participant errors was insignificant ($W = 0.961$, $p = .425$).

In the WL group, the ANOVA results (Table 3) showed that the main effect of time on irritability scores was significant ($F(3, 126) = 7.39$, $p < .01$, $\eta_p^2 = 0.15$). Mauchly's sphericity test for within-participant errors was significant ($W = 0.59$, $p = .000$). Therefore, the G-G correction was used, and it was confirmed that the main effect of time was significant (G-G corrected $p = .000$).

The results showed that follow-up scores were lower than baseline and pre-TFT scores and that post-TFT scores were lower than pre-TFT scores (Table 8).

Fatigue Scores: The TFT group demonstrated a significant main effect on fatigue scores over time (Table 3) ($F(2, 88) = 25.508$, $p < .01$, $\eta_p^2 = 0.367$). The G-G correction confirmed the significant effect ($p = .000$), with fatigue scores continuing to decrease from post-TFT to follow-up. Mauchly's sphericity test for within-participant errors was significant ($W = 0.796$, $p = .007$). Follow-up scores were also significantly lower than post-TFT scores (Table 9). Thus, in the TFT group, fatigue scores were lower after the TFT intervention and scores declined further at follow-up.

In the WL group, fatigue scores also showed a significant time effect ($F(3, 126) = 14.928$, $p < .01$, $\eta_p^2 = 0.262$), with lower scores post-TFT and at follow-up. Mauchly's sphericity test for within-participant errors was insignificant ($W = 0.962$, $p = .903$). Post-TFT and follow-up scores were lower than baseline and pre-TFT scores, with no significant differences (Table 10).

Anxiety Scores: The TFT group experienced a significant reduction in anxiety scores over time (Table 3) ($F(2, 88) = 24.972$, $p < .01$, $\eta_p^2 = 0.362$), confirmed by the G-G correction ($p = .000$). Mauchly's sphericity test for within-participant errors was significant ($W = 0.868$, $p < .05$). Post-TFT and follow-up scores were significantly lower than pre-TFT scores. Follow-up scores were significantly lower than post-TFT

Table 2
Descriptive statistics of each Brief Job Stress Questionnaire (BJSQ) Variable in the Thought Field Therapy (TFT) and Waitlist (WL) Groups.

Variable	Time point	N	Mean	SD
BJSQ total scores				
TFT group	Pre-TFT	45	70.622	11.812
	Post-TFT	45	61.333	15.758
	Follow-up	45	56.922	12.267
WL group	Baseline	43	69.674	14.502
	Pre-TFT	43	74.372	14.035
	Post-TFT	43	62.035	12.805
	Follow-up	43	58.721	11.550
Irritability scores				
TFT group	Pre-TFT	45	7.333	2.494
	Post-TFT	45	6.311	2.239
	Follow-up	45	5.844	2.022
WL group	Baseline	43	7.628	2.252
	Pre-TFT	43	8.000	2.272
	Post-TFT	43	6.837	2.401
	Follow-up	43	6.442	1.647
Vigor scores				
TFT group	Pre-TFT	45	6.511	1.893
	Post-TFT	45	6.978	2.005
	Follow-up	45	7.044	1.873
WL group	Baseline	43	6.302	2.348
	Pre-TFT	43	5.930	1.958
	Post-TFT	43	7.023	2.052
	Follow-up	43	7.198	2.063
Fatigue scores				
TFT group	Pre-TFT	45	8.356	2.469
	Post-TFT	45	7.022	2.445
	Follow-up	45	5.800	2.227
WL group	Baseline	43	8.209	2.328
	Pre-TFT	43	8.907	2.331
	Post-TFT	43	7.163	2.381
	Follow-up	43	6.628	1.917
Anxiety scores				
TFT group	Pre-TFT	45	8.178	2.224
	Post-TFT	45	6.867	2.029
	Follow-up	45	6.133	2.083
WL group	Baseline	43	8.140	2.493
	Pre-TFT	43	8.791	2.288
	Post-TFT	43	6.861	2.258
	Follow-up	43	6.186	2.127
Depression scores				
TFT group	Pre-TFT	45	14.300	3.707
	Post-TFT	45	11.689	4.071
	Follow-up	45	10.933	3.568
WL group	Baseline	43	14.163	4.946
	Pre-TFT	43	15.279	4.479
	Post-TFT	43	12.058	4.266
	Follow-up	43	11.140	3.501
Somatic complaints scores				
TFT group	Pre-TFT	45	24.022	5.491
	Post-TFT	45	21.711	6.404
	Follow-up	45	20.044	4.482
WL group	Baseline	43	23.791	6.253
	Pre-TFT	43	25.302	6.381
	Post-TFT	43	21.174	6.108
	Follow-up	43	20.116	4.551

scores (Table 11). Thus, in the TFT group, anxiety scores decreased after the TFT intervention and dropped further at follow-up. Anxiety scores in the WL group also declined significantly over time ($F(3, 126) = 14.928$, $p < .01$, $\eta_p^2 = 0.262$). Mauchly's sphericity test for within-participant errors was insignificant ($W = 0.962$, $p = .903$).

Post-TFT and follow-up scores were significantly lower than baseline and pre-TFT scores, while post-TFT and follow-up scores did not differ significantly (Table 12).

Depression Scores: In both groups, depression scores significantly decreased following the TFT intervention. In the TFT group, the reduction was significant ($F(2, 88) = 20.734$, $p < .01$, $\eta_p^2 = 0.32$) and sustained through follow-up, while the WL group also showed significant decreases post-TFT and at follow-up ($F(3, 126) = 20.73$, $p < .01$, $\eta_p^2 = 0.33$). Mauchly's sphericity test for within-participant errors was not significant ($W = 0.881$, $p = .066$). There was no significant difference between post-TFT and follow-up scores (Table 13). Therefore, in the TFT group, depression scores decreased after the TFT intervention and remained low at follow-up. In the WL group, the ANOVA results (Table 3) showed that the main effect of time on depression scores was

Table 3
Summary of the Analysis of Variance (ANOVA) Results in the Thought Field Therapy (TFT) and Waitlist (WL) Groups.

Variable	SS	df	MS	F	*p*-value	η_p^2
BJSQ total scores						
TFT group	4401.470	2	2200.735	27.670	.000	0.386
WL group	6542.000	3	2180.664	27.520	.000	0.396
Vigor scores						
TFT group	7.600	2	3.800	1.794	.1723	0.039
WL group	46.132	3	15.377	6.818	.000	0.140
Irritability scores						
TFT group	52.193	2	26.096	11.649	.000	0.209
WL group	65.645	3	21.882	7.390	.000	0.150
Fatigue scores						
TFT group	147.040	2	73.519	25.508	.000	0.367
WL group	135.510	3	45.169	14.928	.000	0.262
Anxiety scores						
TFT group	96.548	2	48.274	24.972	.000	0.362
WL group	135.510	3	45.169	14.928	.000	0.262
Depression scores						
TFT group	280.850	2	140.424	20.734	.000	0.320
WL group	464.070	3	154.691	20.730	.000	0.331
Somatic complaints scores						
TFT group	359.130	2	179.563	14.610	.000	0.249
WL group	727.620	3	242.540	16.718	.000	0.285

Table 4
Changes in BJSQ Total Scores in the Thought Field Therapy (TFT) group over time with the Bonferroni correction for multiple comparisons.

Within-group comparisons			*P*
Pre-TFT	>	Post-TFT	*
Pre-TFT	>	Follow-up	*
Post-TFT	=	Follow-up	n.s.

(MSE = 79.546, * $p < .05$, alpha' = 0.017; BONF = 4.590).

Table 5
Changes in BJSQ Total Scores in the Waitlist (WL) group over time with the Bonferroni correction for multiple comparisons.

Within-group comparisons			*P*
Baseline	=	Pre-TFT	n.s.
Baseline	>	Post-TFT	*
Baseline	>	Follow-up	*
Pre-TFT	>	Post-TFT	*
Pre-TFT	>	Follow-up	*
Post-TFT	=	Follow-up	n.s.

(MSE = 79.239, * $p < .05$, alpha' = 0.008; BONF = 5.151).

Table 6
Changes in Vigor Scores in the Waitlist (WL) group over time with the Bonferroni correction for multiple comparisons.

Within-group comparisons			*P*
Baseline	=	Pre-TFT	n.s.
Baseline	=	Post-TFT	n.s.
Baseline	<	Follow-up	*
Pre-TFT	<	Post-TFT	*
Pre-TFT	<	Follow-up	*
Post-TFT	=	Follow-up	n.s.

(MSE = 2.255, * $p < .05$, alpha' = 0.008; BONF = 0.8690).

Table 7
Changes in irritability scores in the Thought Field Therapy (TFT) group over time with the Bonferroni correction for multiple comparisons.

Within-group comparisons			P
Pre-TFT	>	Post-TFT	*
Pre-TFT	>	Follow-up	*
Post-TFT	=	Follow-up	n.s.

(MSE = 2.240, * $p < .05$, alpha' = 0.017; BONF = 0.770).

Table 8
Changes in irritability scores in the Waitlist (WL) group over time with the Bonferroni correction for multiple comparisons.

Within-group comparisons			P
Baseline	=	Pre-TFT	n.s.
Baseline	=	Post-TFT	n.s.
Baseline	>	Follow-up	*
Pre-TFT	>	Post-TFT	*
Pre-TFT	>	Follow-up	*
Post-TFT	=	Follow-up	n.s.

(MSE = 2.961, * $p < .05$, alpha' = 0.008; BONF = 0.996).

Table 9
Changes in fatigue scores in the Thought Field Therapy (TFT) group over time with the Bonferroni correction for multiple comparisons.

Within-group comparisons			P
Pre-TFT	>	Post-TFT	*
Pre-TFT	>	Follow-up	*
Post-TFT	>	Follow-up	*

(MSE = 2.882, * $p < .05$, alpha' = 0.017; BONF = 0.8736).

Table 10
Changes in fatigue scores in the Waitlist (WL) group over time with the Bonferroni correction for multiple comparisons.

Within-group comparisons			P
Baseline	=	Pre-TFT	n.s.
Baseline	>	Post-TFT	*
Baseline	>	Follow-up	*
Pre-TFT	>	Post-TFT	*
Pre-TFT	>	Follow-up	*
Post-TFT	=	Follow-up	n.s.

(MSE = 3.026, * $p < .05$, alpha' = 0.008; BONF = 1.007).

Table 11
Changes in anxiety scores in the Thought Field Therapy (TFT) group over time with the Bonferroni correction for multiple comparisons.

Within-group comparisons			P
Pre-TFT	>	Post-TFT	*
Pre-TFT	>	Follow-up	*
Post-TFT	>	Follow-up	*

(MSE = 1.933, * $p < .05$, alpha' = 0.017; BONF = 0.716).

significant ($F(3, 126) = 20.73$, $p < .01$, $\eta_p^2 = 0.33$). Mauchly's sphericity test for within-participant errors was significant ($W = 0.613$, $p = .001$). Therefore, the G-G correction was used, confirming that the main effect of time was significant ($p = .000$). Post-TFT and follow-up scores did not differ significantly (Table 14).

Somatic Complaints Scores: In the TFT group, the ANOVA results (Table 3) showed a significant main effect of time on somatic complaints scores ($F(2, 88) = 14.61$, $p < .01$, $\eta_p^2 = 0.249$). Mauchly's sphericity test for within-participant errors was not significant ($W = 0.881$, $p = .066$). After applying the Bonferroni correction for multiple comparisons, post-TFT scores were lower than pre-TFT scores and follow-up scores were lower than pre-TFT scores. However, there was no significant difference between post-TFT and follow-up scores (Table 15). Thus, in the TFT group, somatic complaints scores dropped after the TFT intervention and remained low at follow-up.

In the WL group, the ANOVA results (Table 3) indicated that the main effect of time on somatic complaints scores was significant ($F(3, 126) = 16.718$, $p < .01$, $\eta_p^2 = 0.285$). Mauchly's sphericity test for within-participant errors was significant ($W = 0.628$, $p = .001$). Therefore, the G-G correction was used, confirming that the main effect of time was significant ($p = .000$).

Although somatic complaints scores were significantly lower post-TFT and at follow-up than at baseline and pre-TFT, post-TFT and follow-up scores did not differ significantly (Table 16).

Table 12
Changes in anxiety scores in the Waitlist (WL) group over time with the Bonferroni correction for multiple comparisons.

Within-group comparisons			P
Baseline	=	Pre-TFT	n.s.
Baseline	>	Post-TFT	*
Baseline	>	Follow-up	*
Pre-TFT	>	Post-TFT	*
Pre-TFT	>	Follow-up	*
Post-TFT	=	Follow-up	n.s.

(MSE = 3.049, * $p < .05$, alpha' = 0.008; BONF = 1.010).

Table 13
Changes in depression scores in the Thought Field Therapy (TFT) group over time with the Bonferroni correction for multiple comparisons.

Within-group comparisons			P
Pre-TFT	>	Post-TFT	*
Pre-TFT	>	Follow-up	*
Post-TFT	=	Follow-up	n.s.

(MSE = 6.773, * $p < .05$, alpha' = 0.017; BONF = 1.339).

Table 14
Changes in depression scores in the Waitlist (WL) group over time with the Bonferroni correction for multiple comparisons.

Within-group comparisons			P
Baseline	=	Pre-TFT	n.s.
Baseline	>	Post-TFT	*
Baseline	>	Follow-up	*
Pre-TFT	>	Post-TFT	*
Pre-TFT	>	Follow-up	*
Post-TFT	=	Follow-up	n.s.

(MSE = 7.462, * $p < .05$, alpha' = 0.008; BONF = 1.581).

SUDS results

To observe the effect of the TFT intervention on SUDS scores at each time point, a *t*-test was performed to compare them before and after the intervention. The *t*-test results revealed a significant difference in mean scores between the two time points ($t(244) = 33.7106$, $p < .01$). Mean SUDS scores before the intervention were significantly higher than those

Table 15
Changes in somatic complaints scores in the Thought Field Therapy (TFT) group over time with the Bonferroni correction for multiple comparisons.

Within-group comparisons			P
Pre-TFT	>	Post-TFT	*
Pre-TFT	>	Follow-up	*
Post-TFT	=	Follow-up	n.s.

(MSE = 12.290, * $p < .05$, alpha' = 0.017; BONF = 1.8041).

Table 16
Changes in somatic complaints scores in the Waitlist (WL) group over time with the Bonferroni correction for multiple comparisons.

Within-group comparisons			P
Baseline	=	Pre-TFT	n.s.
Baseline	>	Post-TFT	*
Baseline	>	Follow-up	*
Pre-TFT	>	Post-TFT	*
Pre-TFT	>	Follow-up	*
Post-TFT	=	Follow-up	n.s.

(MSE = 14.508, * $p < .05$, alpha' = 0.008; BONF = 2.2039).

after the intervention (Table 17). The 95 % confidence interval for the difference in means was 5.142–5.780; thus, the smallest difference was >5 points.

Negative emotions focused on by TFT

The TFT sessions addressed 248 distinct problems reported by the 88 participants (Table 18).

Discussion

This study aimed to evaluate whether providing TFT sessions via video chat improved stress and mental health outcomes during the COVID-19 pandemic. Eighty-eight participants were randomly assigned to either the TFT group or the WL control group, and both groups received brief interventions. A comparison of pre- and post-intervention scores revealed that TFT significantly alleviated negative emotions measured by the BJSQ, including mental and physical stress reactions, irritability, fatigue, anxiety, depression, and somatic complaints. Notably, these effects were sustained over a two- to six-week follow-up period.

The BJSQ, developed by Japan's Ministry of Health, Labor, and Welfare, typically identifies 10 % of workers as experiencing high stress levels. In this study, 40 % of participants had high stress levels before the TFT intervention, indicating higher-than-average baseline stress. Post-intervention, the proportion of high-stress participants in the TFT group decreased to 10 % and further declined to 7 % at follow-up.

The SUDS was administered immediately before and after the TFT intervention, showing a significant reduction from an average of 7 points pre-intervention to 1.5 points post-intervention ($p = .000$). Follow-up SUDS scores remained low, averaging 1.8 points and reflecting a large effect size (dz = 2.15). Previous research on TFT has reported medium to large effect sizes, which were corroborated by this study's results.[15,16,18,20] In comparable studies, single-session treatments averaged 36[20] to 41 min,[15] yet the present study achieved similar significant improvements with two 20-minute Zoom sessions conducted two weeks apart.

The study did not restrict the categories of issues addressed in the sessions, allowing participants to target any distress-inducing concerns. In total, TFT sessions addressed 248 distinct problems reported by the 88 participants, who had preexisting diagnoses, including PTSD, eating disorders, panic disorders, and depression (Table 18). In clinical practice, counseling typically focuses on a primary complaint, though psychological distress often extends beyond a single issue. Robson et al.'s PTSD study[18] similarly utilized TFT to address secondary psychological symptoms such as anxiety, pain, and anger, which seem to contribute to PTSD. TFT's versatility allows for brief, yet effective, sessions that accommodate a range of psychological concerns, presenting a valuable complement to traditional counseling methods. Additionally, TFT requires no disclosure of past traumas, reducing the emotional burden on clients.

Table 17
Paired T-Test results comparing Subjective Unit of Distress Scale (SUDS) scores between time points.

Condition	N	Mean	SD	t value	df	p	dz
Pre-intervention	245	7.008	2.160	33.711	244.000	.000	2.154
Post-intervention	245	1.547	1.932				

Table 18
Categories of negative emotions associated with participants' main complaints.

Targeted Categories ($n = 248$)	TFT group	WL group
Trauma	47	41
Anxiety and tension	25	27
Interpersonal stress	17	18
Attachment issues	13	12
Anger	11	3
Guilt	6	4
Physical pain	8	6
Other	4	6

Approximately 64 % of participants reported engaging in self-care practices between the two interventions, which may have supported the longevity of TFT's benefits. Self-care resources—including instructional manuals, videos, and apps—were accessible on digital devices, providing convenient, continuous support. During the COVID-19 pandemic, when psychological and economic stressors were exacerbated, accessible mental health interventions were urgently needed. With rising concerns over SARS-CoV-2 infection, simple, digital, and effective methods such as TFT could be valuable tools to address diverse mental health needs efficiently.

TFT, delivered online, offers an adaptable and economical approach for addressing a broad spectrum of psychological issues. For those managing complex mental health challenges, TFT not only mitigates pandemic-related stress but may also bolster resilience. Furthermore, TFT serves as a self-care technique, making it an accessible and scalable option for enhancing mental well-being.

Limitations

The variable follow-up periods and timing of comparisons may limit the generalizability of the findings. Additionally, short session durations may have constrained the intervention's full potential; future research may benefit from exploring the effects of longer TFT interventions.

Conclusions

This study demonstrates that a brief online TFT intervention, administered during the COVID-19 pandemic, effectively reduced subjective distress and improved general physical and mental stress responses. TFT also significantly alleviated negative psychological symptoms, including irritability, fatigue, anxiety, depression, and somatic complaints. Importantly, these benefits were sustained over a follow-up period of two to six weeks, indicating the durability of TFT's effects. Future research should explore the efficacy of extended TFT interventions, potentially involving a greater number and longer duration of sessions, to further mitigate psychological distress and enhance mood improvement. Investigating the application of TFT across diverse populations and stress-related conditions may also provide valuable insights into its broader clinical utility.

Ethical considerations

This study was approved by the Research Ethics Committee of the Japanese TFT Association (approval number: 2,021,001), and followed the WMA Declaration of Helsinki regarding the ethical principles of medical research involving human subjects. Informed consent was obtained from all participants prior to the trial.

Funding

This research received no specific grants from any funding agency in the public, commercial, or not-for-profit sectors.

Declaration of competing interest

The authors have no conflicts of interests to declare that are directly relevant to the content of this article. The TFT Center of Japan is a private training institute for psychotherapy.

CRediT authorship contribution statement

Ayame Morikawa: Project administration, Investigation, Conceptualization. **Masaki Fujimoto:** Formal analysis. **Yuriko Kawagishi:** Investigation. **Tomiyo Fukagawa:** Investigation.

Acknowledgments

We thank the following TFT therapists who contributed to the data collection: Yumi Kagawa, Mitsuko Kondo, Akiko Nakamura, Harue Morisawa, Misako Takayama, and Toyomi Tsushima. We thank Kazue Suzuki for scheduling all sessions.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.explore.2025.103117.

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